

**Notice of Allowability**

Application No.

10/813,807

Applicant(s)

KUDUVALLI, GOPINATH

Examiner

Anand Bhatnagar

Art Unit

2624

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/31/04.
2. ☒ The allowed claim(s) is/are 1-29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>11/04/04</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                   | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

***Allowable Subject Matter***

1. Claims 1-29 are allowed.
2. The following is an examiner's statement of reasons for allowance: The closest prior art of Ozcan et al. (U.S. patent pub.2006/0132783 A1) discloses to perform a Fourier transform on an object followed by an inverse transform on the object to obtain the linearity/nonlinearity of the surface of the sample. Ozcan et al., regarding claim 1, does not teach "sampling a surface  $S(\theta, \phi, \varphi, u', v')$  within said 3D Fourier transform  $F(u, v, w)$ , at angles  $(\theta, \phi, \varphi)$  corresponding to said orientation of said 3D scan volume," nor teaches "computing the 2D inverse Fourier transform  $F^{-1}[S(\theta, \phi, \varphi, u', v')]$  of said surfaces  $(\theta, \phi, \varphi, u', v')$ ," these, in combination with the other claim limitations. Regarding claim 13, Ozcan et al. does not teach "resampling said 3D  $F(u, v, w)$  data set along a surface  $S(\theta, \phi, \varphi, u', v')$  within said data set, said surface passing through the origin of said 3D data set and being defined by angles  $(\theta, \phi, \varphi)$  corresponding to said orientation of said 3D scan volume" nor teaches "computing the 2D inverse Fourier transform  $F^{-1}[S(\theta, \phi, \varphi, u', v')]$  of said surface  $S(\theta, \phi, \varphi, u', v')$  to generate a DRR along a projection direction perpendicular to said surface  $S(\theta, \phi, \varphi, u', v')$ ," these, in combination with the other claim limitations. Regarding claim 19, Ozcan et al. does not teach "resampling means for resampling said 3D data set along a surface  $S(\theta, \phi, \varphi, u', v')$ , said surface  $S(\theta, \phi, \varphi, u', v')$  being defined at angles  $(\theta, \phi, \varphi)$  corresponding to said orientation of said 3D scan volume," nor teaches "a second processor configured to compute a 2D inverse Fourier transform  $F^{-1}[S(\theta,$

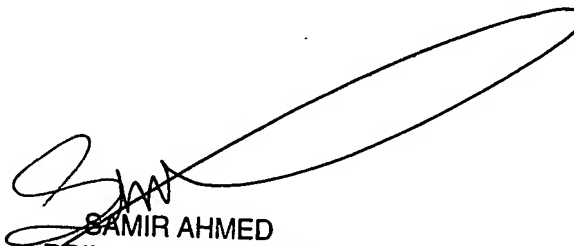
$\phi, \phi, u', v']$  of said surface  $S(\theta, \phi, \phi, u', v')$ ," these, in combination with the other claim limitations. Regarding claim 29, Ozcan et al. does not teach "resampling means for resampling said 3D data set along a surface  $S(\theta, \phi, \phi, u', v')$ , said surface  $S(\theta, \phi, \phi, u', v')$  passing through the origin and being defined at angles  $(\theta, \phi, \phi,)$  corresponding to said orientation of said 3D scan volume," nor teaches "a second processor configured to compute a 2D inverse Fourier transform  $F^{-1} [S(\theta, \phi, \phi, u', v')]$  of said surface  $S(\theta, \phi, \phi, u', v')$ ; wherein said 2D inverse transform  $F^{-1} [S(\theta, \phi, \phi, u', v')]$  is a DRR along a projection direction perpendicular to said surface  $S(\theta, \phi, \phi, u', v')$ ," these, in combination with the other claim limitations.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Bhatnagar whose telephone number is 571-272-7416. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



SAMIR AHMED  
PRIMARY EXAMINER



AB  
August 19, 2007